#3



ENTERED

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/068,160

DATE: 02/28/2002

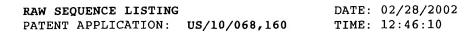
TIME: 12:46:10

Input Set : A:\EP.txt

Output Set: N:\CRF3\02282002\J068160.raw

	3	<110>	APPLICANT: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, REPR	RESENTED BY THE		
	4		SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES			
	5		KLINMAN, Dennis			
	6		ISHII, Ken			
	7		VERTHELYI, Daniela			
	9	<120>	TITLE OF INVENTION: OLIGODEOXYNUCLEOTIDE AND ITS USE TO INDUCE	AN IMMUNE		
RESPONSE						
	11	<130>	FILE REFERENCE: 4239-61999			
C>	13	<140>	CURRENT APPLICATION NUMBER: US/10/068,160			
C>	13	<141>	CURRENT FILING DATE: 2002-02-06			
	13	<150>	PRIOR APPLICATION NUMBER: 60/128,898			
			PRIOR FILING DATE: 1999-04-12			
			NUMBER OF SEQ ID NOS: 120			
			SOFTWARE: PatentIn version 3.1			
	20	<210>	SEQ ID NO: 1			
			LENGTH: 20			
			TYPE: DNA			
			ORGANISM: Artificial Sequence			
			FEATURE:			
			OTHER INFORMATION: Oligonucleotide			
			SEQUENCE: 1			
			atcga tgcaggggg	20		
			SEQ ID NO: 2			
			LENGTH: 20			
			TYPE: DNA			
			ORGANISM: Artificial Sequence			
			FEATURE:			
			OTHER INFORMATION: Oligonucleotide			
			SEQUENCE: 2			
			accgg tgcaggggg	20		
			SEQ ID NO: 3	20		
			LENGTH: 20			
			TYPE: DNA			
			ORGANISM: Artificial Sequence			
			FEATURE:			
			OTHER INFORMATION: Oligonucleotide			
			SEQUENCE: 3			
			tete gagegttete	20		
			SEQ ID NO: 4	۷.		
			LENGTH: 11			
			TYPE: DNA			
			ORGANISM: Artificial Sequence			
,		<220>	FEATURE:			

62 <223> OTHER INFORMATION: Oligonucleotide



Input Set : A:\EP.txt

Output Set: N:\CRF3\02282002\J068160.raw

64 <400> SEQUENCE: 4 65 tcgagcgttc t 68 <210> SEQ ID NO: 5	11
69 <211> LENGTH: 20	
70 <212> TYPE: DNA	
71 <213> ORGANISM: Artificial Sequence	
73 <220> FEATURE:	
74 <223> OTHER INFORMATION: Oligonucleotide	
76 <400> SEQUENCE: 5	
77 ggtgcacgcg tgcagggggg	20
80 <210> SEQ ID NO: 6	
81 <211> LENGTH: 12	
82 <212> TYPE: DNA	
83 <213> ORGANISM: Artificial Sequence	
85 <220> FEATURE:	
86 <223> OTHER INFORMATION: Oligonucleotide	
88 <400> SEQUENCE: 6	12
89 tgcaggcttc tc	12
92 <210> SEQ ID NO: 7	
93 <211> LENGTH: 20 94 <212> TYPE: DNA	
94 <212> 11PE: DNA 95 <213> ORGANISM: Artificial Sequence	
97 <220> FEATURE:	
98 <223> OTHER INFORMATION: Oligonucleotide	
100 <400> SEQUENCE: 7	
101 ggtgcgtcga tgcagggggg	20
104 <210> SEO 1D NO: 8	
104 <210> SEQ ID NO: 8 105 <211> LENGTH: 19	
105 <211> LENGTH: 19	
105 <211> LENGTH: 19 106 <212> TYPE: DNA	
105 <211> LENGTH: 19	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE:	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tcgactctcg agcgttctc	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tegacteteg agegttete 116 <210> SEQ ID NO: 9	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tcgactctcg agcgttctc 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tcgactctcg agcgttctc 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE:	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tcgactctcg agcgttctc 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tcgactctcg agcgttctc 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tcgactctcg agcgttctc 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9 125 actctcgagc gttctc	19
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tcgactctcg agcgttctc 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9 125 actctcgagc gttctc 128 <210> SEQ ID NO: 10	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tegactctcg agcgttctc 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9 125 actctcgagc gttctc 128 <210> SEQ ID NO: 10 129 <211> LENGTH: 24	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tegacteteg agegttete 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9 125 actetegage gttete 128 <210> SEQ ID NO: 10 129 <211> LENGTH: 24 130 <212> TYPE: DNA	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tegacteteg agegttete 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9 125 actetegage gttete 128 <210> SEQ ID NO: 10 129 <211> LENGTH: 24 130 <212> TYPE: DNA 131 <213> ORGANISM: Artificial Sequence	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tegacteteg agegttete 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9 125 actetegage gttete 128 <210> SEQ ID NO: 10 129 <211> LENGTH: 24 130 <212> TYPE: DNA 131 <213> ORGANISM: Artificial Sequence	
105 <211> LENGTH: 19 106 <212> TYPE: DNA 107 <213> ORGANISM: Artificial Sequence 109 <220> FEATURE: 110 <223> OTHER INFORMATION: Oligonucleotide 112 <400> SEQUENCE: 8 113 tegacteteg agegttete 116 <210> SEQ ID NO: 9 117 <211> LENGTH: 16 118 <212> TYPE: DNA 119 <213> ORGANISM: Artificial Sequence 121 <220> FEATURE: 122 <223> OTHER INFORMATION: Oligonucleotide 124 <400> SEQUENCE: 9 125 actetegage gttete 128 <210> SEQ ID NO: 10 129 <211> LENGTH: 24 130 <212> TYPE: DNA 131 <213> ORGANISM: Artificial Sequence	

RAW SEQUENCE LISTING DATE: 02/28/2002 PATENT APPLICATION: US/10/068,160 TIME: 12:46:10

Input Set : A:\EP.txt

Output Set: N:\CRF3\02282002\J068160.raw

137	ctcgagcgtt ctctcgagcg ttct	24
	<210> SEQ ID NO: 11	
	<211> LENGTH: 20	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 11	
	ggtgcatcga tacagggggg	20
	<210> SEQ ID NO: 12	
	<211> LENGTH: 18	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 12	
	tgcatcgatg cagggggg	18
	<210> SEQ ID NO: 13	
	<211> LENGTH: 18	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 13	
	tgcaccggtg cagggggg	18
	<210> SEQ ID NO: 14	
	<211> LENGTH: 18	
178	<212> TYPE: DNA	
179	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
182	<223> OTHER INFORMATION: Oligonucleotide	
184	<400> SEQUENCE: 14	
185	tgcgtcgacg cagggggg	18
	<210> SEQ ID NO: 15	
189	<211> LENGTH: 16	
190	<212> TYPE: DNA	
191	<213> ORGANISM: Artificial Sequence	
193	<220> FEATURE:	
194	<223> OTHER INFORMATION: Oligonucleotide	
196	<400> SEQUENCE: 15	
197	gggcatgcat gggggg	16
200	<210> SEQ ID NO: 16	
201	<211> LENGTH: 18	
202	<212> TYPE: DNA	
203	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 16	
209	tgcgtcgatg cagggggg	18

DATE: 02/28/2002 RAW SEQUENCE LISTING PATENT APPLICATION: US/10/068,160 TIME: 12:46:10

Input Set : A:\EP.txt
Output Set: N:\CRF3\02282002\J068160.raw

	<210> SEQ ID NO: 17	
	<211> LENGTH: 18	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 17	18
	tgcgccggcg cagggggg	то
	<210> SEQ ID NO: 18	
	<211> LENGTH: 18	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 18	10
	tgcgccgatg cagggggg	18
	<210> SEQ ID NO: 19	
	<211> LENGTH: 18	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 19	18
	tgcatcgacg cagggggg	10
	<210> SEQ ID NO: 20	
	<211> LENGTH: 18	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 20	18
	tgcgtcggtg cagggggg	10
	<210> SEQ ID NO: 21	
	<211> LENGTH: 20 <212> TYPE: DNA	
	<212> TYPE: DNA <213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide <400> SEQUENCE: 21	
		20
	ggtgcatcta tgcagggggg <210> SEQ ID NO: 22	
	<211> LENGTH: 12	
	<212> TYPE: DNA	
	<213> ORGANISM: Artificial Sequence	
	<220> FEATURE:	
	<223> OTHER INFORMATION: Oligonucleotide	
	<400> SEQUENCE: 22	
	tcaagtgttc tc	12
	<210> SEQ ID NO: 23	
204	THE OLY IN NO. 10	

RAW SEQUENCE LISTING DATE: 02/28/2002 PATENT APPLICATION: US/10/068,160 TIME: 12:46:10

Input Set : A:\EP.txt

Output Set: N:\CRF3\02282002\J068160.raw

```
285 <211> LENGTH: 12
286 <212> TYPE: DNA
287 <213> ORGANISM: Artificial Sequence
289 <220> FEATURE:
290 <223> OTHER INFORMATION: Oligonucleotide
292 <400> SEQUENCE: 23
                                                                           12
293 ttgttcgaac tc
296 <210> SEQ ID NO: 24
297 <211> LENGTH: 12
298 <212> TYPE: DNA
299 <213> ORGANISM: Artificial Sequence
301 <220> FEATURE:
302 <223> OTHER INFORMATION: Oligonucleotide
304 <400> SEQUENCE: 24
                                                                           12
305 ttgttcgagc tc
308 <210> SEQ ID NO: 25
309 <211> LENGTH: 12
310 <212> TYPE: DNA
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: Oligonucleotide
316 <400> SEQUENCE: 25
                                                                           12
317 ttgttcgtac tc
320 <210> SEQ ID NO: 26
321 <211> LENGTH: 20
322 <212> TYPE: DNA
323 <213> ORGANISM: Artificial Sequence
325 <220> FEATURE:
326 <223> OTHER INFORMATION: Oligonucleotide
328 <400> SEQUENCE: 26
                                                                            20
329 ggtgtgtcga tgcagggggg
332 <210> SEQ ID NO: 27
333 <211> LENGTH: 12
334 <212> TYPE: DNA
335 <213> ORGANISM: Artificial Sequence
337 <220> FEATURE:
338 <223> OTHER INFORMATION: Oligonucleotide
340 <400> SEQUENCE: 27
                                                                           12
341 ttqttcqttc tc
344 <210> SEQ ID NO: 28
345 <211> LENGTH: 12
346 <212> TYPE: DNA
347 <213> ORGANISM: Artificial Sequence
349 <220> FEATURE:
350 <223> OTHER INFORMATION: Oligonucleotide
352 <400> SEQUENCE: 28
                                                                            12
353 tcgaatgctc tc
356 <210> SEQ ID NO: 29
357 <211> LENGTH: 12
```

VERIFICATION SUMMARY

DATE: 02/28/2002

PATENT APPLICATION: US/10/068,160

TIME: 12:46:11

Input Set : A:\EP.txt

Output Set: N:\CRF3\02282002\J068160.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date